



***WAR THEORY:
THE EVOLUTION OF WAR AND
MILITARY THOUGHT***

SYLLABUS

AY 18

**JOINT PROFESSIONAL MILITARY EDUCATION
PHASE I INTERMEDIATE LEVEL COURSE**

**UNITED STATES AIR FORCE
AIR COMMAND AND STAFF COLLEGE
*21st Century Leaders for 21st Century Challenges***

**AIR COMMAND AND STAFF COLLEGE
MAXWELL AFB, AL**

FOREWORD

This syllabus for the War Theory course for the Air Command and Staff College, August-October 2017, provides both an overview of the course narrative, objectives, and questions, as well as a detailed description of each lesson to assist students in their reading and preparation for lecture and seminar. Included herein is information about course methods of evaluation, schedule, and the fulfillment joint professional military education core goals.

SIGNED

Kelly A. Grieco, PhD
Course Director, War Theory

APPROVED

James Forsyth, PhD
Dean of Academic Affairs

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WAR THEORY COURSE OVERVIEW

COURSE DESCRIPTION

War Theory introduces military theory, addressing both the nature and character of war. It examines the theoretical writings of classical military theorists, as well as the evolution of warfare and military thought over the last two centuries. The course explores a number of the most outstanding historical cases of military innovation, assessing the utility of military theories across the military domains. The course also considers the future evolution of warfare, analyzing both change and continuity in armed conflict. In applying military theory to contemporary security challenges, students will be able to better anticipate and respond to operational problems across the range of military operations.

COURSE OBJECTIVES

1. Comprehend both the nature and character of war, as well as continuity and change in warfare.
2. Analyze the evolution of military theory across the military domains over the last two centuries.
3. Apply military theory to understand and address contemporary and future operational security challenges.

COURSE QUESTIONS

1. What is the nature of war?
2. How has war and military thought evolved across the military domains over the last two centuries?
3. How has its fundamental nature and character endured and/or changed?
4. Which military theories are most relevant for understanding the nature and the character of war today and in the future?

COURSE ORGANIZATION AND NARRATIVE

War Theory seeks to prepare leaders of the joint force to be “strategically minded, critical thinkers and skilled joint warfighters.”¹ To this end, the course asks students to grapple with complex political, technological, economic, and social changes to the Profession of Arms over the last two centuries and, in turn, expand their thinking beyond the level of tactics to that of policy, strategy, and operations. This course stresses critical strategic thinking about the role of the Profession of Arms in the contemporary environment. It drives students to think critically about war, instilling in them the ability to anticipate and recognize change in armed conflict, and to communicate such understanding with clarity and precision.

War Theory has three phases, with each phase of the course organized around answering a core question about the nature and character of war. Phase I explores the nature of war, seeking to deepen students’ understanding of war as political, social and cultural phenomena, with its own fundamental purpose and logic. It introduces the classical military theorists— Antoine-Henri

¹ Chairman of the Joint Chiefs of Staff, CJCS Visions for Joint Officer Development (Washington, DC: Department of Defense, 2005), p. 2.

Jomini, Carl von Clausewitz, and Sun Tzu—as a way to comprehend the purpose, role, and function of armed forces.

Phase II of the course considers the evolution of theory and principles of war across the military domains over the last century. It introduces students to the seminal theoretical contributions of J.F.C. Fuller, Heinz Guderian, Alfred Thayer Mahan, Julian S. Corbett, Giulio Douhet and J.C. Slessor. It also presents the views of more contemporary theorists like Thomas C. Schelling, John R. Boyd, John A. Warden, III, and Robert Pape. These theorists provide a framework to comprehend current joint doctrine, as well the interrelationship between service doctrine and joint doctrine. In this phase, students also explore the integration of IO and cyberspace operations with other lines of operation at the operational level of war. By exploring a number of historical cases of military operations, students gain a better understanding of the utility of military theory across the military domains.

Phase III of the course examines the future evolution of warfare, analyzing both continuity and change in armed conflict. It applies military theory to understand and address current and future operational challenges, giving students a better understanding of the role of the Profession of Arms in the contemporary security environment. Students gain a better appreciation of the importance of factors such as geopolitics, society, culture, and religion in the planning and execution of joint operations. They also comprehend more fully the capabilities and limitations of US military forces to conduct the full range of military operations in pursuit of national interests.

In each of these phases, War Theory employs an interdisciplinary approach to the study of war, integrating the disciplines of anthropology, history, political science, security studies, and psychology with joint concepts from the Profession of Arms. The course methodology is unique, combining the study of foundational theories of war with the close analysis of historical and contemporary case studies. This methodological approach illustrates how theory and principles of war apply to the operational level of war across the range of military operations. The cases stress the importance of adaptation and innovation on military planning and operations, giving students the chance to evaluate and discuss the relative success or failure of past military planners in crafting effective strategies. The cases also provide a means to examine the efforts of both civilian and military leaders to reconcile national objectives with the means available, giving students a better appreciation of relationships between national security objectives, military objectives, conflict termination, and post-conflict transitions.

At a time when the global security environment is so uncertain and complex, it is all the more important for military professionals to develop their own “theory” of war and prepare themselves intellectually for future armed conflict. The goal of War Theory is to provide such an education through the study of military theory and historical and contemporary case studies, conceptualizing the wider social and political impact of change and continuity in war.

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

War Theory addresses Intermediate-Level College Joint Learning Areas and Objectives for Joint Professional Military Education (JPME), established by the Chairman of the Joint Chiefs of Staff via the Officer Professional Military Education Policy (OPMEP), CJCSI 1800.01E, signed 29

May 2015. The course supports the following Joint Learning Areas and Objectives, listed below with points of explanation:

Learning Area 1 – National Military Capabilities Strategy

- a. Comprehend the capabilities and limitations of US military forces to conduct the full range of military operations in pursuit of national interests.
 - Lessons WT-511, 512, 513, 514, 515, 516, 517, 520, 521 discuss the capabilities and limitations of ground, naval and air forces from both theoretical and historical contexts.
 - Lessons WT-518, 519, 522, and 523 discuss the role of nuclear weapon, space and cyber capabilities in military operations.
 - Lessons WT-524 and 525 relate current US military capabilities and limitations to contemporary and future security challenges.
- b. Comprehend the purpose, roles, authorities, responsibilities, functions, and relationships of the President, the Secretary of Defense, National Security Council, Homeland Security Council, Chairman of the Joint Chiefs of Staff, Joint Chiefs of Staff, Combatant Commanders, Joint Force Commanders, Service component commanders, and combat support agencies.
 - Lessons WT-505, 506, 507, and 508 discuss theories of civil-military relations.

Learning Area 2 – Foundation of Joint Warfare and the Profession of Arms

- a. Comprehend current joint doctrine
 - All course lessons relate military theories and case studies to current joint doctrine (see “related joint doctrine”).
- b. Comprehend the interrelationship between Service doctrine and joint doctrine
 - Lessons WT-511, 512, 513, 514, 515, 516, 517, 520, and 521 recognize the interrelationship between service doctrine and joint doctrine.
- c. Apply solutions to operational problems in a volatile, uncertain, complex or ambiguous environment using critical thinking, operational art, and current joint doctrine.
 - All course lessons prepare students to think strategically about the range of military operations.
 - Lessons examine both continuity and change in the conduct of war.
 - Lessons apply military theory and operational art to historical and contemporary cases.
 - Written assignments WT-601 and 602 apply military theory and operational art to contemporary and historical cases.
 - Lessons 522, 523, 524, and 525 examine the future of warfare, including the challenge of operating in a volatile, uncertain, complex, and ambiguous environment.

Learning Area 3 – Joint and Multinational Forces at the Operational Level of War

- a. Comprehend the security environment within which Joint Forces are created, employed, and sustained in support of JFCs and component commanders.

- Lessons WT-502 and 503 assess the enduring importance of human nature in shaping the strategic environment.
- Lessons WT-522, 523, 524 and 525 discuss the contemporary security environment.
- Written assignment WT-602 examines the contemporary security environment in which joint forces are created, employed, and sustained.
- c. Comprehend the interrelationships among strategic, operational, and tactical levels of war.
 - All course lessons discuss the strategic, operational, and tactical levels of war, including continuity and change in the relationships between them.
 - In particular, lessons WT-516, 518, 519, 521, and 524 examine whether particular military technologies can produce strategic effects.
- d. Comprehend how theory and principles of joint operations pertain to the operational level of war across the range of military operations to include traditional and irregular warfare that impact the strategic environment.
 - All course lessons explain the theory and principles of joint operation at the operational level of war, with lessons WT-505, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, and 525 covering the range of military operations.
 - In particular, lessons WT-508, 509, 524, and 525 discuss irregular warfare.
 - Written assignments WT-601 and 602 apply military theory and the principles of joint operations to contemporary and historical cases.
- f. Analyze a plan critically for employment of joint and multinational forces at the operational level of war.
 - Lessons WT -505, 507, 509, 512, 513, 515, 517, and 521 apply theory to analyze critically wartime operational plans. These lessons draw from both historical and contemporary cases.
- g. Comprehend the relationships between national security objectives, military objectives, conflict termination, and post conflict transition to enabling civil authorities.
 - Lessons WT-504, 505, 513, 514, 516, 518, 519, 520, 521, and 524 examine the concept of decisive victory. WT-513, 517, 520 and 524 apply the concept of decisive victory to understand historical and contemporary case studies.
 - Lesson WT-506 and 507 discuss political-military integration, whether the military means align with the achievement of political objectives.
 - Lessons-508 and 509 analyze indirect approaches to the achievement of both military objectives and national security objectives.
 - Lesson WT-507 and WT-524 discuss the issue of conflict termination and post-conflict transitions.

Learning Area 4 – Joint and Multinational Forces at the Operational Level of War

- a. Comprehend the relationship among national objectives and means available through the framework provided by the national levels systems.
 - Lesson WT-506 and 507 provides a theoretical understanding of the importance of reconciling the available means with national objectives.

- b. Comprehend the fundamentals of joint operation planning across all the phases of a joint operation.
 - Lessons WT-504, 505, 506, 507, 511, 512, 513, 514, 516, and 524 provide the theory and historical context to comprehend the fundamentals of joint operational planning across all phases of a joint operation.
- c. Comprehend the integration of joint functions (command and control, intelligence, fires, movement and maneuver, protection and sustainment) to operational planning problems across the range of military operations.
 - Lessons WT-504, 505, 506, 507, 508, 511, 512, 513, 514, 515, 516, 517, 521, 522, and 523 discuss the principles operations and functions across the range of military operations in theoretical and historical context.
- e. Comprehend the integration of IO and cyberspace operations with other lines of operations at the operational level of war.
 - Lessons WT-522, 523 and 525 discuss the integration of information operations and cyberspace operations with other lines of operations.
 - Lesson WT-524 examines the importance of strategic narrative and information operations in contemporary operations.
- f. Comprehend the roles that factors such as geopolitics, geostrategy, society, region, culture/diversity, and religion play in shaping planning and execution of joint force operations across the range of military operations.
 - Lessons WT-502, 503, 504, 505, 506, 507, 508, 509, 524, and 525 discuss the role of geopolitics, society, region, culture, and religion play in shaping the nature and/or character of war.

Learning Area 5 – Joint Command and Control

- c. Comprehend the effects of networks and cyberspace on the ability to conduct Joint Operational Command and Control.
 - WT-522, 523, and 525 discuss the effects of networks and cyberspace on the ability to conduct Joint Operational Command and Control.

Learning Area 6 – Joint Operational Leadership and the Profession of Arms

- a. Comprehend the role of the Profession of Arms in the contemporary environment.
 - All course lessons provide the theoretical and/or historical basis for understanding the role of the Profession of Arms in the contemporary environment. In particular, the course considers both change and continuity in the Profession of Arms over the last two centuries.
 - Written Assignment WT-602 examines the role of the Profession of Arms in the contemporary environment.
- b. Comprehend critical thinking and decision-making skills needed to anticipate and recognize change, lead transitions, and anticipate/adapt to surprise and uncertainty.
 - All course lessons emphasize critical thinking and decision-making skills, honing student abilities to think critically about operational challenges and speak articulately about them.
 - Lessons WT-504, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, and 525 provide examples of theorists and practitioners anticipating and

- recognizing change in the conduct of war, whether the sources of such change are political, social, cultural or technological.
- The case studies evaluate the strategic decision-making and innovation practices of past military leaders.
- Written assignments WT-601 and 602 prepare students to think and write critically about military operations.
- c. Comprehend the ethical dimension of operational leadership and the challenges it may present when considering the values of the Profession of Arms.
 - WT-502 and 503 discuss the human dimension and the challenge its presents to the values of the Profession of Arms.
 - WT-524 discusses the ethnic dimension of operational leadership and the challenges of ethical leadership in contemporary operations.
- e. Communicate with clarity and precision.
 - Writing assignments WT-600, 601, and 602 prepare students to think and write critically about military operations.
 - All lectures provide students with examples of critical thinking and clear communication.
 - All seminars provide the chance for students to become skilled in thinking and communicating clearly about military theory, strategy, operations, and policy.
- f. Analyze the importance of adaptation and innovation on military planning and operations.
 - Lessons WT-504, 509, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, and 525 analyze the importance of adaption and innovation on military planning and operations in both military theory and contemporary and historical cases.
 - Written Assignment WT-602 analyzes the importance of adaptation and innovation on military planning and operations.

COURSE REQUIREMENTS

- 1. READINGS.** Before lecture and seminar, students are expected to complete all assigned readings for the day. Students are encouraged to read the explanation given in the syllabus before reading the assigned books and articles. The syllabus also provides information on current joint doctrine, as it relates to the topic of the day. While students are not required to read joint doctrine for this course, they are encouraged to explore the connections between military theory, operational art, and current joint doctrine.
- 2. LECTURES.** Students will attend faculty lectures relating to assigned readings and seminar. These presentations compliment the readings and seminar discussion, and therefore enhance knowledge of the course concepts. Lectures in the course take two forms: morning lectures provide historical and theoretical background to stimulate and enhance learning in seminar, while afternoon lectures apply the theories and concepts presented in the readings and discussed in seminar to historical and contemporary case studies. Lectures are not for attribution.

3. **SEMINAR PARTICIPATION.** Student participation in seminar discussions is vital to the success of the course. Students must prepare for each seminar by completing all of the assigned readings. Each member of seminar is expected to contribute to the discussion.
4. **WRITTEN ASSIGNMENTS.** There are two written, graded assignments and one written, ungraded assignment in fulfillment of the requirements of the War Theory course: One single-page, ungraded response paper; one three-page take-home examination; and one five-page take-home final examination. Importantly, all written work must include as the first citation an acknowledgement of colleagues who made an intellectual contribution to the work.

METHODS OF EVALUATION. The three-page take-home examination is worth 30 percent of the final course grade; the five-page take-home final examination is worth 70 percent of the final course grade.

COURSE ADMINISTRATION

There are two types of readings in this course: 1) readings from books issued by ACSC; and 2) selected chapters and articles posted on Canvas. To avoid confusion, the syllabus denotes all readings posted online as “EL” (“electronic”). Students can access the syllabus, course calendar, and selected readings as well as other supplemental materials online. In addition, lecture slides will be posted at least twenty-four hours prior to lecture.

The syllabus includes sections on “related joint doctrine” for all course lessons. Students are encouraged but not required for this course to read the related joint doctrine. Both course lectures and seminars, however, will discuss the connections between military theory and current joint doctrine. Online, students will find a supplementary packet containing the key Joint Warfighting Concepts (JWC), as they relate to this course. These documents are referred to as JWC 1-8 throughout this syllabus.

ACSC provides students with copies of the following course books, which must be returned at the conclusion of the course:

- Gerard Chaliand, ed., *The Art of War in World History* (Los Angeles: University of California Press, 1994).
- Carl von Clausewitz, *On War*, Michael Howard and Peter Paret eds. and trans. (Princeton: Princeton University Press, 1976).
- Julian S. Corbett, *Some Principles of Maritime Strategy* (Mineola, NY: Dover Publications, Inc., 2004 [1911]).
- Giulio Douhet, *The Command of the Air*, trans. Dino Ferrari (Washington, DC: Office of Air Force History, 1983).
- Michael R. Gordon and General Bernard E. Trainor, *The Generals’ War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown and Company, 1995).
- Michael Howard, *War in European History* (Oxford, UK: Oxford University Press, 2009 [1976]).

- John Andreas Olsen, ed., *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd* (Annapolis: Naval Institute Press, 2015).
- Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca: Cornell University Press, 1996).
- Peter Paret, ed., *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton: Princeton University, 1986).
- Steven Pinker, *The Better Angels of Our Nature: Why Violence Has Declined* (New York: Penguin, 2011).
- Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 2008 [1966]).
- Emile Simpson, *War from the Ground Up: Twenty-First Century Combat as Politics* (Oxford, UK: Oxford University Press, 2013).
- J.C. Slessor, *Air Power and Armies* (Tuscaloosa: University of Alabama Press, 2009).
- Sun Tzu, *The Art of War*, translated by Samuel Griffith (Oxford: Oxford University Press, 1963).

Please refer any questions to Dr. Kelly Grieco (Course Director) or Maj Tenaya Humphrey (Deputy Course Director).

WAR THEORY COURSE SCHEDULE

DAY 0 – COURSE INTRODUCTION

DATE: 4 August 2017

LESSON OBJECTIVES

1. Explain the course objectives, course questions, and course narrative.
2. Review the course syllabus, methods of evaluation, and expectations for seminar.
3. Comprehend the distinction between the nature and character of war.

LESSON OVERVIEW

WT-500 (L): Course Overview (Grieco)

Overview: War Theory introduces military theory, addressing both the nature and character of war. This course examines the theoretical writings of classical military theorists, as well as the evolution of warfare and military thought over the course of the twentieth century. This lecture introduces students to the course objectives, schedule, and requirements, as well as the overall narrative and three phases of the course.

CONTACT HOURS: 1.0-hour lecture

WT-501 (S): Course Introduction

Overview: In this seminar, instructors introduce themselves to their seminars, discuss classroom policies, and set the stage for seminar discussions schedule for Day 1.

CONTACT HOURS: 1.0-hour seminar

WRITTEN ASSIGNMENT

ASSIGNMENT FOR ONE-PAGE (UNGRADED) RESPONSE PAPER DISTRIBUTED.

REQUIRED READINGS

1. Joint Publication 1, Chapter 1 (“Theory and Foundations”), pp. 1-21. [EL]

[This reading reviews the fundamental principles guiding the employment of US military forces. It introduces the principles of war and other joint concepts explored in greater detail throughout this course].

RELATED JOINT DOCTRINE

None.

PHASE I: WHAT IS THE NATURE OF WARFARE?

War as Human Nature, Science, and Politics

DAY 1 – WAR AS HUMAN NATURE

DATE: 8 August 2017

LESSON OBJECTIVES

1. Comprehend historical trends related to war, the reasons humans fight, and the importance of human nature for understanding the contemporary security environment.
2. Comprehend the different perspectives of Hobbes and Rousseau on the relationship between human nature and war.
3. Assess the arguments of Hobbes and Rousseau against evidence from history, anthropology, sociology, and biology.

LESSON OVERVIEW

WT-502 (L): Is the State of Nature a State of War? (Forsyth)

Overview: This lecture considers whether the state of nature is a “war of all against all,” in which human beings are purely self-interested, constantly fear violent death, and make cooperation all but impossible.

CONTACT HOURS: 1.0-hour lecture

WT-503 (S): War as Human Nature

Overview: Is war an inseparable part of human nature? Is war declining? If so, have we managed to escape our nature? The answers to these questions are critical for our understanding of war. The readings offer philosophical, historical, political, anthropological, and biological explanations for the continued resort to armed conflict throughout human history. The aim of the seminar is not to offer definitive answers to these complex questions, but to encourage students to explore and develop their own understandings of war.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Selections from Hobbes and Rousseau. Thomas Hobbes, *Leviathan* (1651), Chapter 13, Book I; and Jean-Jacques Rousseau, Part I of *Discourse on Origins of Inequality* (1755). From Cahn, ed. *Exploring Philosophy: an Introductory Anthology* (Oxford, UK: Oxford University Press Books, 2015). [EL]

[Hobbes and Rousseau present contending arguments about the relationship between human nature and war].

2. Steven Pinker, *The Better Angels of Our Nature*, Chs. 2 (pp. 31-56), 8 (509-569), and 9 (571-592).

[Pinker examines the arguments of Hobbes and Rousseau against the historical record and findings from anthropology, evolutionary biology, sociology, and psychology].

RELATED JOINT DOCTRINE

1. Joint Publication 1, Appendix B (“The Profession of Arms”), pp. B1-B3.

DAY 2 – WAR AS SCIENCE

DATE: 11 August 2017

LESSON OBJECTIVES

1. Comprehend elements of both continuity and change in the conduct of warfare during the Napoleonic Wars.
2. Comprehend Jomini's fundamental principles of warfare, including offensive, objective, strategy, lines of operation, mass, maneuver, decisive points, and strategic combinations.
3. Assess the utility of Jomini's scientific approach to contemporary net assessment and operations analysis.

LESSON OVERVIEW

WT-504 (L): The Origins of the Napoleonic Method (Johnson)

Overview: The French Revolution (1789) introduced great social and political changes, including the emergence and spread of nationalism. The transformation of society and government brought equally profound changes in the conduct of European warfare. Rather than monarch against monarch, war became a struggle of nation against nation. Napoleon Bonaparte exploited these changes in a bid for the mastery of Europe. Though Napoleon was ultimately defeated, he continued to inspire generations of military commanders. This lecture examines the essential characteristics of Napoleon's military method.

CONTACT HOURS: 1.0-hour lecture

WT-505 (S): War as Science

Overview: Antoine-Henri Jomini, a Swiss officer who rose to the rank of general of brigade in Napoleon's army before switching his allegiance to Russia in 1813, emerged as one of the earliest and most influential military scholars of the Napoleonic period. His seminal work, *The Art of War*, first appeared in 1838. Jomini, a product of the Enlightenment and the Age of Reason, applied the scientific method, as he understood it, to the study of warfare. He argued that war could be reduced to a universal immutable set of principles for achieving battlefield success. This seminar examines the theoretical writings of Jomini and explores the application of Jomini's scientific approach to war and strategy to modern operations. Are Jomini's principles for the employment of military force still applicable today? How is net assessment and operations research an extension of Jomini's notion of war as a science? What might such analyses miss about the nature of war?

CONTACT HOURS: 2.0-hour seminar

WRITTEN ASSIGNMENT

****ONE-PAGE (UNGRADED) RESPONSE PAPER IS DUE****

REQUIRED READINGS

1. Michael Howard, *War in European History*, Chapters 4-5, pp. 54-93.

[This background reading on the Napoleonic period provides historical context to better understand the changes in European warfare influencing the ideas of both Jomini and Clausewitz].

2. Antoine-Henri Jomini, “Statesmanship and Its Relation to War,” “Strategy,” “Strategic Combinations,” and “Epitome of Strategy,” in Chaliand, ed., *The Art of War in World History*, pp. 724-742.

[These selections from the writings of Jomini offer a concise presentation of his more scientific approach to war].

3. John J. Mearsheimer, "Why the Soviets Can't Win Quickly in Central Europe," *International Security*, Vol. 7, No. 1 (Summer 1982), pp. 139-175. **[EL]**

[In this seminal article, Mearsheimer applies Jomini’s more scientific approach to war to assess the Soviet threat to Western Europe in the Cold War. Students should consider what, if anything, might be missing from his analysis].

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Levels of Warfare), pp. I-7 to I-8. **[JWC 1]**
2. Joint Publication 3-0, Appendix A (“Principles of Joint Operations”), pp. A-1 to A-4; Chapter 3 (“Joint Functions”), specifically pp. III-1 to III-48; and Chapter V (“Joint Operations across the Conflict Continuum”), pp. V-7 to V-14. **[JWC 2, 3, 4]**
3. Joint Publication 5-0, Chapter 3, Section B (“Elements of Operational Design”), pp. III-18 to III-38. **[JWC 5]**

DAY 3 – War as Politics (Direct)

DATE: 15 August 2017

LESSON OBJECTIVES

1. Comprehend Clausewitz's arguments about the relationship between politics and war, including the relationship between political objectives and military objectives in war.
2. Comprehend Clausewitz's views on the trinity, friction, centers of gravity (COG), absolute war vs. real war, the principle of continuity, limited war, and decisive victory.
3. Assess Clausewitz's arguments about effective civil-military relations, specifically the responsibilities of statesmen, and commanders.

LESSON OVERVIEW

WT-506 (S): War as Politics (Direct)

Overview: Carl von Clausewitz, a Prussian contemporary of Jomini, is arguably the most influential of military theorists. While Jomini offered a more systematic and scientific study of war, Clausewitz developed a more nuanced, philosophical tome on the nature of war and the complexity of waging it. For Clausewitz, war was “not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on with other means” (*On War*, p. 87). To this point, war could not be reduced to a set of military axioms, for it was far too complex and unpredictable, a paradoxical trinity of reason, chance, and primordial violence. How do Jomini and Clausewitz compare in their views of war? Is Clausewitz's understanding of war still relevant today?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Carl von Clausewitz, *On War*, Book I, Chaps. 1, 2, 4, 7; Book II: chaps. 1-4; and Book VIII: Chaps. 1-8.

[This classic study of war is a difficult reading, not because Clausewitz was a poor writer but because his ideas are sophisticated and complex. It is the most influential work of military theory to this day. Recalling his professional military education, General Colin Powell wrote, “Clausewitz was an awakening for me. His *On War*, written 106 years before I was born, was like a beam of light from the past, still illuminating present-day military quandaries.”²]

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Levels of Warfare), pp. I-7 to I-8. [JWC 1]
2. Joint Publication 3-0, Appendix A (“Principles of Joint Operations”), pp. A-1 to A-4; Chapter 3 (“Joint Functions”), specifically pp. III-1 to III-48; and Chapter V (“Joint Operations across the Conflict Continuum”), pp. V-7 to V-14. [JWC 2, 3, 4]
3. Joint Publication 5-0, Chapter 3, Section B (“Elements of Operational Design”), pp. III-18 to III-38. [JWC 5]

² Colin Powell with Joseph E. Persico, *My American Journey* (New York: Random House, 1995), p. 207.

DAY 4 – War as Politics (Direct)

DATE: 22 August 2017

LESSON OBJECTIVES

1. Comprehend Clausewitz's concepts of strategy, the engagement, moral factors, economy of force, maneuver, and the culminating point of victory, and assess their relevance for contemporary joint operations.
2. Analyze Clausewitz's understanding the relationship between offense and defense in military operations.
3. Apply Clausewitz's concepts to the issue of war termination in the First Gulf War.

LESSON OVERVIEW

WT-507 (S): War as Politics (Direct)

Overview: Clausewitz wrote that "War is an act of force to compel our enemy to do our will" (p. 75). If Clausewitz is correct, what is the implication of his statement for war termination? This seminar will explore the issue of war termination in the First Gulf War, using the case as a way to engage Clausewitz's ideas about strategy, limited war, center of gravity, and the culminating point of victory, as well his concepts of uncertainty, chance, and friction.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Carl von Clausewitz, *On War*, Book III: chaps. 1-5, 11, 14, 17, Book VI, Chaps. 1-5, and 26, Book VII: chaps. 1-7, 13, 15, 16, 22.

[Our reading of Clausewitz's continues, as we focus on his ideas about strategy, moral factors, maneuver, the relationship between offense and defense, and the culminating point of victory.]

2. Michael R. Gordon and Gen. Bernard E. Trainor, *The Generals' War*, Chaps. 18 and 19, pp. 375-432.

[As you read about US decision-making and events surrounding the end hostilities against Iraq in the First Gulf War, try to apply Clausewitz's ideas about strategy, limited war, centers of gravity, and friction, as well as other related concepts].

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 ("Levels of Warfare), pp. I-7 to I-8. [JWC 1]
2. Joint Publication 3-0, Appendix A ("Principles of Joint Operations"), pp. A-1 to A-4; Chapter 3 ("Joint Functions"), specifically pp. III-1 to III-48; and Chapter V ("Joint Operations across the Conflict Continuum"), pp. V-7 to V-14. [JWC 2, 3, 4]
3. Joint Publication 5-0, Chapter 3 ("Elements of Operational Design"), pp. III-18 to III-38; and Chapter III ("Defeat and Stability Mechanisms"), pp. III-29 to III-31. [JWC 5, 7]

DAY 5 – War as Politics (Indirect)

DATE: 25 August 2017

LESSON OBJECTIVES

1. Comprehend the “indirect approach” to war and military strategy.
2. Analyze Sun Tzu’s ideas about strategy and assess the importance of deception, surprise, intelligence, speed, and decisiveness in his writings.
3. Analyze the applicability of the “indirect approach” for understanding contemporary Russian strategy.

LESSON OVERVIEW

WT-508 (S): War as Politics (Indirect)

Overview: This seminar examines the “indirect approach” to war and military strategy. The classic treatise is Sun Tzu’s *The Art of War*, written in 500 B.C.E. Sun Tzu stressed the importance of achieving victory through indirect methods, arguing the “supreme art of war is to subdue the enemy without fighting.” Liddell Hart, writing in the aftermath of the First World War, emphasized Sun Tzu’s ideas on the indirect approach to war. From a historical analysis of twenty-five centuries of warfare, Hart concluded that “throughout the ages, decisive results in war have only been reached when the approach was indirect. In strategy, the longest way round is apt to be the shortest way home.” (*Strategy*, pp. 4-5). In his view, the indirect approach to warfare conferred to the victory a moral and psychological advantage over the enemy. How might the theories of Sun Tzu and Liddell Hart explain the puzzle of strong-actor defeat in asymmetric wars?

CONTACT HOURS: 2.0-hour seminar

WT-509 (L): The Indirect Approach to Contemporary Russian Strategy (Schwonek)

Overview: This lecture explores the applicability of the “indirect approach” for understanding contemporary Russian strategy. Although lampooned as artless and profligate of manpower, Soviet and Russian strategic thought is quite sophisticated. It has long prized integration of military and non-military instruments and careful preparation of the battlespace. From Deep Battle to the Gerasimov Doctrine, controlling and manipulating information and perceptions have been crucial. In current conditions which require the Russian Federation to avoid attacking an opponent’s army or cities, a genuine indirect strategy has emerged, with the potential, “to subdue the enemy without fighting.”

CONTACT HOURS: 1.0-hour lecture

WRITTEN ASSIGNMENT

ASSIGNMENT FOR THREE-PAGE PAPER DISTRIBUTED.

REQUIRED READINGS

1. Sun Tzu, *The Art of War*, pp. 63-149.

[Sun Tzu’s *The Art of War* is deceptively simple. It might appear like a “cookbook” on war and strategy, but its pithy maxims convey deeper meaning. It remains one of the most influential books on war ever written.]

2. B.H. Liddell Hart, “The Strategy of the Indirect Approach,” in Chaliand, ed., *The Art of War in World History*, pp. 927-932.

[As you read this short extract from the writings of Liddell Hart, examine his treatment of Sun Tzu’s ideas].

3. Derek M. C. Yuen, “Deciphering Sun Tzu,” *Comparative Strategy*, Vol. 27, No. 2 (March 2008): 183-200. [EL]

[This article attempts to place Sun Tzu’s *The Art of War* in its appropriate context as a way to recover its original meaning, and explores similarities with Clausewitz’s *On War* and Liddell Hart’s work on strategy].

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Range of Military Operations”), pp. V-1 to V-5. [JWC 6]
2. Joint Publication 3-13, Chapter 1 (“Overview”), pp. I-5 to I-13. [JWC 8]
3. Joint Publication 5-0, Chapter 3 (“Elements of Operational Design”), pp. III-18 to III-38; and Chapter III (“Defeat and Stability Mechanisms”), pp. III-29 to III-31. [JWC 5, 7]

DAY 6 – Writing Day and Student Meetings with Faculty

DATE: 29 August 2017

LESSON OBJECTIVES

1. Organize ideas and develop an outline prior to writing the three-page paper.
2. Discuss thesis statement with seminar instructor.
3. Write and revise the three-page paper.

LESSON OVERVIEW

WT-510 (S): Writing Day and Student Meetings with Faculty

Overview: In lieu of seminar, students will have the opportunity to write and meet with faculty to discuss and review thesis statements for the graded take-home examination, due on Day 7.

REQUIRED READINGS

None.

RELATED JOINT DOCTRINE

None.

Phase II: How has war and military thought evolved across the military domains over the last two centuries?

The Evolution of Warfare and Military Thought

Part I: Military Revolution or Evolution?

Warfare on Land, at Sea, and in the Air, 1914-1945

DAY 7 – Land Domain—Positional Warfare and the Origins of the Modern System

DATE: 5 September 2017

LESSON OBJECTIVES

1. Comprehend the key political, economic, technological, and doctrinal developments leading up to the First World War and their contribution to static warfare, as well as efforts to adapt and find new strategies and tactics to overcome the deadlock.
2. Analyze the Modern System as an explanation for the return of mobility to the battlefield in 1918.
3. Apply the theories of Jomini, Clausewitz, Sun Tzu, and Liddell Hart to the battlefield history.

LESSON OVERVIEW

WT-511 (L): World War I and the Evolution of Combined Arms Maneuver Warfare (Campbell)

Overview: This lecture outlines successive developments before and during the First World War leading to later twentieth century understanding of modern maneuver warfare. In responding to the challenges posed by static warfare in Europe, the belligerents strove to harness both new technologies, along with ideas about how to apply these technologies in a quest for decisive battles leading to victory. The differing national military interpretations of these lessons have shaped subsequent events, as well as understanding and perceptions of warfare down to the present day.

CONTACT HOURS: 1.0-hour lecture

WT-512 (S): Positional Warfare and the Origins of the Modern System

Overview: Even as Jomini and Clausewitz wrote their master works trying to explain the changing character or conduct of warfare that emerged in the course of the Napoleonic Wars, developments in weapons technology and military organization further transformed warfare. The industrialization of European economies resulted in an enormous increase in iron and steel production, technological advances in explosive shells and artillery, the rapid growth of the telegraph and railroad, intense, militaristic nationalism, and the steady professionalization of armies and their officer corps posed radical changes to warfare. Together, these changes produced a revolution in military affairs, moving warfare beyond the Napoleonic model epitomized in the writings of Jomini and Clausewitz. These revolutionary changes in warfare, however, were neither universally recognized nor understood in the decades before the First World War. The sheer scale, power, and ferocity of the warfare confounded strategists and military commanders. Decisive victory was elusive, as combatants struggled to discern the strategies and tactics, gain an advantage, and thus, overcome the deadlock of trench warfare. World War I thus became a testing ground for the theories of Clausewitz, Jomini, and others. Does World War I validate Clausewitz's

theory of war or, as Liddell Hart accuses, discredit it? How do the ideas of Jomini and/or Sun Tzu hold up in the battlefield history of the First World War? In your view, were the strategic teachings Clausewitz, Jomini, or Sun Tzu ignored or misapplied? Did firepower and technology contribute to the carnage without altering human nature, or did technology render human and moral factors as insignificant?

CONTACT HOURS: 2.0-hour seminar

WRITTEN ASSIGNMENT

****THREE-PAGE PAPER IS DUE****

REQUIRED READINGS

1. Michael Howard, "Men against Fire: The Doctrine of the Offensive in 1914," in Paret *et al.* eds. *Makers of Modern Strategy*, pp. 510-526.

[This reading is a classic. It provides background on the technological and doctrinal developments prior to WWI and outlines the basic course of the war].

2. Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton: Princeton University, 2004), Ch. 3 ("The Modern System"), pp. 32-50. [EL]

[This chapter presents a theory of force employment, termed the Modern System. Biddle argues that victory and defeat in battle results from mastery of modern system tactics—cover, concealment, dispersion, deep positions, reserves, small-unit independent maneuver, suppression, and combined arms integration. He further contends that only a small number of countries have managed to master these complex tactics, explaining why western militaries have certain advantages in war.]

3. Timothy Lupfer, "The Dynamics of Doctrine: The Change in German Tactical Doctrine during the First World War," *Leavenworth Paper*, No. 4 (July 1981), entire. [EL]

[This work is another classic. As you read about innovations in German tactical doctrine, apply the theory of the Modern System as an explanation of German battlefield effectiveness].

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 ("Levels of Warfare), pp. I-7 to I-8. [JWC 1]
2. Joint Publication 3-0, Appendix A ("Principles of Joint Operations"), pp. A-1 to A-4; Chapter 3 ("Joint Functions"), specifically pp. III-1 to III-48; and Chapter V ("Joint Operations across the Conflict Continuum"), pp. V-7 to V-14. [JWC 2, 3, 4]
3. Joint Publication 5-0, Chapter 3 ("Elements of Operational Design"), pp. III-18 to III-38; and Chapter III ("Defeat and Stability Mechanisms"), pp. III-29 to III-31. [JWC 5, 7]

DAY 8 – Land Domain—Maneuver Warfare

DATE: 8 September 2017

LESSON OBJECTIVES

1. Compare J.F.C. Fuller's theory of strategic paralysis with Heinz Guderian's conception of mechanized warfare.
2. Apply these theories of mechanized warfare (and other military theories) to explain the outcome of the Battle of France in 1940.
3. Examine the argument that blitzkrieg constituted a revolution in military affairs.

LESSON OVERVIEW

WT-513 (S): Maneuver Warfare

Overview: Interwar Europe was a period of great transition, as military strategists struggled to understand the impact of technological change on the modern battlefield. They sought to find an approach that would avoid a repetition of the bloody trench stalemate from 1914-1918 and return mobility to the battlefield. Military theorists and practitioners J.F.C. Fuller and B.H. Liddell Hart in Great Britain, Charles de Gaulle in France, and Heinz Guderian in Germany, recognized the potential of armored warfare. How well did the military leaders and analysts of the interwar period understand the importance or role of weapons introduced during World War I? In examining the Battle of France (1940), how successful were they in developing doctrine that reflected the capabilities of the technologies of the day?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. J.F.C. Fuller, "Strategic Paralysis as the Objective of Decisive Attack," in *On Future Warfare* (London: Sifton Praed, 1928), pp. 83-105. [EL]

[Fuller, who was one of the earliest advocates of mechanized warfare, argues the tank can deliver a crippling moral blow, thus achieving a quick and decisive victory. We will return to the idea of strategic paralysis again in our discussions of airpower].

2. Heinz Guderian, "Tank Attack," in Chaliand, ed., *The Art of War in World History*, pp. 949-956.

[Guderian, a contemporary of Fuller, played a central role in the development of interwar German armor doctrine. His conception of mechanized warfare differed in important ways from that of Fuller.]

3. Ernest R. May, *Strange Victory: Hitler's Conquest of France* (New York: Hill and Wang, 2000), pp. 227-238, 254-268, 286-322, 347-361, and 383-447. [EL]

[As you read about the Battle of France, examine whether the battle history offers support for the ideas of Fuller and/or Guderian, and develop your own explanation for the German victory and French defeat.]

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Levels of Warfare”), pp. I-7 to I-8. **[JWC 1]**
2. Joint Publication 3-0, Appendix A (“Principles of Joint Operations”), pp. A-1 to A-4; and Chapter 3 (“Joint Functions”), specifically pp. III-1 to III-48; Chapter V (“Joint Operations across the Conflict Continuum”), pp. V-7 to V-14. **[JWC 2, 3, 4]**
3. Joint Publication 5-0, Chapter 3 (“Elements of Operational Design”), pp. III-18 to III-38; and Chapter III (“Defeat and Stability Mechanisms”), pp. III-29 to III-31. **[JWC 5, 7]**

DAY 9 – Naval Domain—Battle Fleets and Submarines

DATE: 12 September 2017

LESSON OBJECTIVES

1. Comprehend the naval theories of Mahan and Corbett, and compare their different ideas about naval strategy.
2. Analyze the role of technology and the relative influence of Mahan and Corbett on British naval strategy during the Fisher era.
3. Apply the theories of Mahan and Corbett to explain the outcome of naval operations in World War I.

LESSON OVERVIEW

WT-514 (S): Naval Theorists, Battle Fleets, and Submarines

Overview: The Napoleonic wars left a mark on naval strategy, influencing the writings of the two great naval threats of the late 19th and early 20th centuries—American naval officer, Alfred Thayer Mahan, and the lawyer from England, Julian S. Corbett. Both theorists attempted to develop a theory of naval war, applying what they read about land warfare to the maritime operations. Mahan offered a theory of sea power and principles of maritime strategy, drawing heavily on Jomini's writings in his emphasis on the importance of lines of communication, concentration, and the offensive to destroy the enemy's fleet. In contrast, Corbett, like Clausewitz, offered a theory of naval war and principles of maritime strategy that eschewed prescription. Which set of ideas better accounts for the practice of sea power during the latter part of the nineteenth and early twentieth centuries? Are Mahan and/or Corbett's ideas still relevant for the employment of naval forces today?

CONTACT HOURS: 2.0-hour seminar

WT-515 (L): Corbett or Mahan? Naval Warfare in the First World War (Wadle)

Overview: This lecture examines the naval history of the First World War. Do the naval theories of Mahan or Corbett offer a better explanation for naval operations in World War I? Why? Which technologies had the greatest effect on the conduct of naval operations? Did any of these technologies invalidate the theories of Mahan or Corbett?

CONTACT HOURS: 1.0-hour lecture

REQUIRED READINGS

1. Alfred Thayer Mahan, "Naval Strategy," in Chaliand, ed., *The Art of War in World History*, pp. 787-807.

[Mahan is arguably the most influential American naval theorist and historian. This reading is an excerpt from his work and develops his views on naval strategy, including strategic positions, the relationship between offense and defense, and strategic lines. Note the influence of Jomini on his understanding of strategy and maritime operations.]

2. Julian S. Corbett, *Principles of Maritime Strategy*, pp. 87-104, 128-135, 157-187, 211-215, 235-245.

[Corbett, a contemporary of Mahan, emerged as Britain's foremost naval theorist prior to the First World War. In this work, he lays out his views on maritime strategy, stressing the importance of command of the sea, the principle of the "fleet in being," and the relationship between land and naval forces. Note the influence of Clausewitz on his thinking.]

3. Nicholas A. Lambert, "Transformation and Technology in the Fisher Era: The Impact of the Communications Revolution," *Journal of Strategic Studies* Vol. 27, No. 2 (2004): 272-297. [EL]

[This article examines Great Britain's response to the German naval buildup in the years before the First World War. As you read this article, note the influence of Corbett's ideas on British naval strategy. You might also consider whether the Fisher Revolution constituted what we today call an offset strategy, and if there is anything for the US to learn from the British experience.]

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 ("Range of Military Operations"), pp. V-1 to V-5. [JWC 6]
2. Joint Publication 3-0, Appendix A ("Principles of Joint Operations"), pp. A-1 to A-4. [JWC 2]
3. Joint Publication 5-0, Chapter 3 ("Elements of Operational Design"), pp. III-18 to III-38. [JWC 5]

DAY 10 – Air Domain—The Origins of Air Power

DATE: 19 September 2017

LESSON OBJECTIVES

1. Comprehend emerging concepts of air superiority, strategic bombing, interdiction, and close air support in the writings of Douhet and Slessor.
2. Analyze similarities and differences in the theories of Douhet and Slessor regarding the employment of air power.
3. Analyze the influence of other military theories on the writings of Douhet and Slessor.
4. Apply the theories of Douhet and Slessor to explain the outcome of air operations in 1940.

LESSON OVERVIEW

WT-516 (S): The Origins of Air Power

Overview: When World War I began, few understood how to employ airpower as an instrument of national policy. By the end of the war, more questions than answers remained. During the interwar period, bold claims for the power of air forces to supplant land and sea power matured—alongside arguments for the emergence of independent air services. Airmen and theorists like Giulio Douhet in Italy and J.C. Slessor in Great Britain extolled airpower's future prospects and made it a basis for their theories of airpower employment; this included discussions of air superiority, strategic bombing, interdiction, and close air support. The modern discourse of airpower theory was born, commencing the conversation about the capabilities and limitations of airpower—which continues to this day. What problems does airpower theory attempt to resolve? In what other forms of military theory do we see the origins of airpower theory? What are the common threads between the ideas of these classical airpower theorists? Where do they diverge? How does classical airpower theory apply to the modern warfighter?

CONTACT HOURS: 2.0-hour seminar

WT-517 (L): The Air War in France and the Low Countries, 1940 (Lukasik)

Overview: This lecture examines the air campaign during the Battle of France. Do the theories of Douhet or Slessor offer a better explanation for air operations in 1940? How important was airpower to the outcome of the Battle of France?

CONTACT HOURS: 1.0-hour lecture

REQUIRED READINGS

1. Giulio Douhet, *The Command of the Air*, pp. 3-31, 49-61, 93-99, 114-138.

[Douhet's *Command of the Air*, first published in 1921, continues to influence American airpower thinking. In this seminal work, Douhet develops his arguments about air superiority, aerial maneuver, offensive operations, and the importance of bombers. Note the influence of other military theories on his writings.]

2. J.C. Slessor, *Air Power and Armies*, pp. 1-10, 61-147.

[Slessor, a contemporary of Douhet, drew on his experience flying in the First World War, to make the case for a strategy of air interdiction in support of land forces. This seminal book—

based on a series of lectures he delivered in the early 1930s while on staff at the Army Staff College—was very much ahead of its time. Note the similarities and differences between him and Douhet. Also consider the relevance of these airpower theories for today.]

RELATED JOINT DOCTRINE

1. Joint Publication 3-0, Appendix A (“Principles of Joint Operations”), pp. A-1 to A-4; and Chapter V (“Joint Operations across the Conflict Continuum”), pp. V-7 to V-14. **[JWC 2, 4]**
2. Joint Publication 5-0, Chapter 3 (“Elements of Operational Design”), pp. III-18 to III-38. **[JWC 5]**

Part II: Military Revolution or Evolution? **The Three Military Offsets, 1945 to Present**

DAY 11 – The First Military Offset: the Nuclear Age

DATE: 22 September 2017

LESSON OBJECTIVES

1. Comprehend the origins of the first military offset, including the three classical approaches to nuclear deterrence.
2. Analyze Schelling's arguments about nuclear deterrence and coercion, specifically the contrast of brute force with coercion, the distinction between deterrence and compellence, the importance of relinquishing the initiative, the challenges extended deterrence, and the dangers of brinkmanship.
3. Apply these concepts to assess the implications of China's nuclear modernization for US-China security relations

LESSON OVERVIEW

WT-518 (L): Nuclear Revolution or Evolution? Nuclear Deterrence: Modeling the First Military Offset (Deaile)

Overview: This lecture introduces the key concepts and terminology used in the study of nuclear deterrence theory. In examining the origins of the first offset, it presents three classical approaches to nuclear deterrence. It concludes with a discussion of the contemporary US approach to nuclear deterrence, emphasizing the continued challenges of extended deterrence.

CONTACT HOURS: 1.0-hour lecture

WT-519 (S): The First Military Offset—the Nuclear Age

Overview: The atomic bombs dropped on Hiroshima and Nagasaki in August 1945 occurred at the end of the Second World War and ushered in the nuclear age. Nuclear weapons transformed the use and the threatened use of force. Atomic and nuclear weapons raised questions about the varying advantage of defense over offense. Some strategists maintained that the advent of nuclear weapons undermined the very utility of war as a tool of statecraft while others argued that these new weapons gave military power a decidedly different political purpose—to deter rather than wage war. Were nuclear weapons simply more destructive or fundamentally different from conventional weapons? What about tactical nuclear weapons? How do nuclear deterrence concepts apply to US-China security relations today?

CONTACT HOURS: 2.0-hour seminar

WRITTEN ASSIGNMENT

FINAL PAPER ASSIGNMENT DISTRIBUTED

REQUIRED READINGS

1. Bernard Brodie, “The Weapon: War in the Atomic Age,” in Bernard Brodie *et al.*, eds., *The Absolute Weapon: Atomic Power and World Order* (1946), SKIM pp. 14-38. [EL]

[This reading is from a draft of the book and has marginalia from General Dwight D. Eisenhower. It represents one of the earliest attempts to grapple with the consequences of a major technological innovation in warfare.]

2. Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), pp. 1-125.

[Schelling won the Nobel Prize in Economics in 2005 for his work on nuclear deterrence theory. His theory of a “diplomacy of violence” was highly influential in shaping US Cold War Strategy, and it continues to shape thinking about strategy and nuclear weapons to this day.]

3. Thomas J. Christensen, “The Meaning of the Nuclear Evolution: China’s Strategic Modernization and US-China Security Relations,” *Journal of Strategic Studies* Vol. 35, No. 4 (2012): 447-487. [EL]

[In this article, Christensen applies the theories of Brodie, Schelling and other classical deterrence theorists to predict the future of US-China security relations.]

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Levels of Warfare), pp. I-7 to I-8 and (“Range of Military Operations”), pp. V-1 to V-5. [JWC 1, 6]

DAY 12 – The Second Military Offset: Precision-guided Munitions and Stealth

DATE: 26 September 2017

LESSON OBJECTIVES

1. Analyze the origins of the second military offset, specifically the development of precision-guided munitions and stealth technologies.
2. Comprehend Warden's theory of airpower, based on a five-ring model of enemy systems.
3. Comprehend Pape's theory of airpower coercion, including his arguments about the effectiveness of punishment, risk, denial, and decapitation strategies.
4. Evaluate the merits of these arguments against the historical record from the air campaign in Gulf War I.

LESSON OVERVIEW

WT-520 (L): Revolution or Evolution in Military Affairs? Origins of the Second Military Offset (Terino)

Overview: This lecture explores the origins of the second military offset, with a focus on the development of precision-guided munitions and stealth technologies. It considers whether the second military offset was a response or driver of a technological revolution in military affairs, and whether these technological advances fundamentally altered the nature and/or character of war.

CONTACT HOURS: 1.0-hour lecture

WT-521 (S): The Second Military Offset—Precision-guided Munitions and Stealth

Overview: Have advances in technology made it possible to defeat the enemy by strategic paralysis? Colonel John Warden developed an approach to airpower employment in the late 1980s that married ideas of strategic attack with emerging investments in precision-guided munitions, stealth, and intelligence, surveillance, and reconnaissance. By compressing time and space through parallel attack, Warden argues that airpower can paralyze the enemy, leading to rapid victory and a better state of peace. At the same time, Robert Pape challenges the effectiveness of strategic attack, concluding that aerial coercion succeeds only when the coercer renders the target state unable to achieve its objective through the use of military force. Daryl Press examines both sides of the argument in his study of airpower's effectiveness in Gulf War I. How do Warden's ideas reflect Jominian and Clausewitzian thinking? Is Warden a proponent of an indirect approach to airpower strategy? How do Pape and Press challenge the ideas of Warden? How does Warden respond? What evidence does each side offer to support their key claims? Who is more persuasive?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. John A. Warden, III, "The Enemy as a System," *Airpower Journal* (Spring 1995): 40-55.
[EL]

[Warden was one of the main architects of air campaign in Gulf War I. He drew on this experience in developing his later theory of airpower, including his "five rings" model.]

In the “The Enemy as a System,” Warden outlines the tenets of his theory. Note the influence of earlier airpower theorists and other classical military theorists on his thinking.]

2. Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca: Cornell University Press, 1996), Chs. 1 and 2 and 7, pp 1-54.

[Pape is a former faculty member of School of Advanced Air and Space Studies (SAASS) and now a Professor of Political Science at the University of Chicago. He provides a provocative analysis of air power as a coercive instrument in American military strategy. Note how his theory challenges Warden, as well as the influence of other military theorists on his thinking.]

3. John Warden, III, “Success in Modern War: A Response to Robert Pape’s *Bombing to Win*,” *Security Studies*, 7, 2 (1997/98): 172-190. [EL]

[This article offers Warden’s response to Pape’s critique of the five-ring model. Evaluate the relative merits of the two sides in this debate].

4. Daryl Press, “The Myth of Air Power in the Persian Gulf War and the Future of Warfare,” *International Security*, vol. 26, no. 2 (Fall 2001), pp. 5-44. [EL]

[In this article, Press examines the evidence from the air campaign in Gulf War I. As you read, evaluate whether the historical record offers better support for Warden or Pape.]

RELATED JOINT DOCTRINE

1. Joint Publication 3-0, Chapter V (“Joint Operations across the Conflict Continuum”), pp. V-7 to V-14. [JWC 4]
2. Joint Publication 5-0, Chapter 3 (“Elements of Operational Design”), pp. III-18 to III-38; and Chapter III (“Defeat and Stability Mechanisms”), pp. III-29 to III-31. [JWC 5, 7]

DAY 13 – The Third Military Offset: Information Predominance, Space, and Cyberspace

DATE: 29 September 2017

LESSON OBJECTIVES

1. Analyze the origins of the third military offset, specifically the development of robotics, space, cyberspace capabilities.
2. Comprehend Boyd's theory of strategy, based on his concept of the OODA loop.
3. Apply the concept of the OODA loop to assess the implications of the third offset for future military operations.

LESSON OVERVIEW

WT-522 (L): Revolution or Evolution in Military Affairs? Origins of the Third Military Offset (Dolman)

Overview: In November 2015, the Pentagon announced an initiative to develop new military technologies and operational concepts to counter growing threats to US military preponderance. With potential US adversaries fielding increasingly potent anti-access/area-denial (A2/AD) capabilities, the Pentagon spoke of the need for a “sense of urgency” in developing military technologies to assure the US maintains its military edge. Some of these cutting-edge technologies are robotics, autonomous operating guidance and control systems, biotechnology, and advancing computing and big data, as well as counter-space capabilities, cyber capabilities, and electronic warfare. This lecture explores both the origins and implications of the Third Military Offset for contemporary and future military conflicts.

CONTACT HOURS: 1.0-hour lecture

WT-523 (S): The Third Military Offset— Information Predominance, Space, and Cyberspace

Overview: This seminar considers the applicability of the theoretical insights of John Boyd to the development of strategy in the space and/or cyber domains. Do space systems and information technologies serve primarily as force multipliers in support of military operations conducted on land, sea, and in air? Alternatively, is space an independent domain of conflict and war? How likely is space warfare? Will network-based technologies act as an enabler of traditional forms of warfare, or as a new form of warfare in itself?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Frans P.B. Osinga, The Enemy as Complex Adaptive System: John Boyd and Airpower in the Postmodern Era,” in John Andreas Olsen, ed., *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd* (Annapolis: Naval Institute Press, 2015), pp. 48-92.

[Col John Boyd, a USAF fighter pilot who flew the F-86 Sabre during the Korean War, developed lessons from his combat experience into a generalized theory of conflict. He presented his ideas as a series of briefings slides. This chapter offers a summary and analysis of Boyd's main arguments. As you read, apply Boyd's ideas to information campaigns, space, and cyber warfare, as well as air operations.]

2. Thomas K. Adams, "Future Warfare and the Decline of Human Decisionmaking," *Parameters* (Winter 2011-12): 1-15. [EL]

[This article applies Boyd's OODA Loop to assess the consequences of automatization on the future of warfare.]

3. Thomas Rid, "Cyber war will not take place." *Journal of Strategic Studies* 35, no. 1 (2012): 5-32. [EL]

[This article usefully examines what constitutes cyber war and identifies the range of cyber activities. Note the influence of Clausewitz on his thinking.]

RELATED JOINT DOCTRINE

1. Joint Publication 3-13, Chapter 1 ("Overview"), pp. II-5 to II-13. [JWC 8]

**Phase III: How might warfare evolve in the future?
Which military theories are most relevant for
understanding the nature and the character of war today
and in the future?**

The Future of Warfare

DAY 14 – The Changing Character of Contemporary Conflicts

DATE: 3 October 2017

LESSON OBJECTIVES

1. Analyze the arguments of “old” and “new” wars scholars.
2. Analyze Simpson’s theory of war as an interpretative structure, including his arguments about polarity, strategic audiences, and strategic narrative.
3. Assess the likelihood of major power war in the future, and analyze the implications for US force structure.

LESSON OVERVIEW

WT-524 (S): The Changing Character of Contemporary Conflicts

Overview: Some commentators believe that insurgents, terrorists, and warlords have transformed not merely the character of war but even its nature. So unfamiliar has the conduct of modern wars become to Western conceptions of war that some commentators have privileged them with the title of “new wars.” But, what is really new about contemporary conflict, as opposed to what seems new? This seminar considers whether the nature and/or character of war has changed since the end of the Cold War. Are wars fought today fundamentally different from earlier conflicts? Is war still a useful instrument of policy? Which of the military theorists examined in this course are still relevant for understanding the nature, character, and conduct of war today and in the future?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Bart Schuurman, "Clausewitz and the "New Wars" Scholars," *Parameters* (Spring 2010): 89-100. [EL]

[This article provides an overview and analysis of the argument that modern wars are fundamentally different from wars of the past. As you read, formulate your own position in this debate.]

2. Emile Simpson, *War from the Ground Up: Twenty-First Century Combat as Politics*, pp. 1-39, 54-109, 179-206.

[Simpson, a former British infantry officer who served with the Royal Gurkha Rifles in Afghanistan, aligns himself with the new wars scholars. He argues that contemporary armed conflict has blurred the distinction military activity and politics. As you read, consider the implications of his argument for future armed conflicts.]

3. Steven Metz, “Has the US Lost the Ability to Fight a Major War?” *Parameters* (Summer 2015): 7-12. [EL]

[In contrast to Simpson, Metz foresees a return to major power war. As you read his argument, reflect on the challenges of preparing for both future conventional and irregular wars, and its implications for US force structure.]

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Levels of Warfare), pp. I-7 to I-8; and 1 (“Range of Military Operations”), pp. V-1 to V-5. **[JWC 1, 6]**
2. Joint Publication 3-0, Chapter V (“Joint Operations across the Conflict Continuum”), pp. V-7 to V-14. **[JWC 4]**
3. Joint Publication 5-0, Chapter III (“Defeat and Stability Mechanisms”), pp. III-29 to III-31. **[JWC 7]**

Day 15 – The Challenge of Strategic Uncertainty and the Changing Character of War

DATE: 6 October 2017

LESSON OBJECTIVES

1. Comprehend the concept of strategic uncertainty and its implications for US security strategy.
2. Analyze the political, social, economic, and technological changes transforming contemporary armed combat.
3. Analyze the implications of these changes for the future of warfare, specifically the nature and/or character of war in the future.

LESSON OVERVIEW

WT-525 (L): The Challenge of Strategic Uncertainty and the Changing Character of War (Springer)

Overview: This course has explored the consequences of societal, political, organizational, and technological changes over the course of the last three hundred years. We have observed both fundamental change and persistent continuity in the practice of war. As war is fundamentally a human activity, as humankind evolves, so do the ways and means of human violence. Now, many scholars and strategists argue that radical and lasting changes have transformed the character and perhaps even the nature of war. The sources of these changes are political and social, as well technological. First, some scholars predict the end of US hegemony, foreseeing China, Russia, and other nations as political, economic, and military peer competitors. Second, they argue the power and authority of the modern nation-state is in decline, pointing to the rise of non-state actors (such as warlords, insurgent leaders, and terrorist groups) in military conflicts, as bringing about a different kind of warfare, characterized by low-level with few distinctions between combatants and noncombatants. Finally, the introduction of new technologies—from wired and wireless networks to satellites, space sensors, and robotics—have introduced new types of warfare. Are we in the midst of a revolution in military affairs? How might the nature and/or character of war change in the future?

CONTACT HOURS: 2.0-hour panels

WRITTEN ASSIGNMENT

****FINAL PAPER IS DUE****

REQUIRED READINGS

None.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (“Range of Military Operations”), pp. V-1 to V-5. [JWC 6]
2. Joint Publication 3-13, Chapter 1 (“Overview”), pp. II-5 to II-13. [JWC 8]
3. Joint Publication 5-0, Chapter 3 (“Elements of Operational Design”), pp. III-18 to III-38; and Chapter III (“Defeat and Stability Mechanisms”), pp. III-29 to III-31. [JWC 5, 7]

APPENDIX: COURSE FACULTY

Lt Col Jonathan Arnett, PhD, is an associate professor of national security studies in the Department of International Security at Air University's Air Command and Staff College (ACSC). He is presently the deputy course director of International Security 1: Concepts and Challenges. He also teaches International Security 2: The Use of Armed Force and Joint Air Operations. Lt Col Arnett earned his PhD in political science from the Nelson A. Rockefeller College of Public Affairs and Policy at the State University of New York in Albany. He is a graduate of the U.S. Air Force Academy and a 2006 graduate of Air Command and Staff College.

Dr. Terry Beckenbaugh is an Associate Professor in the Department of Joint Warfare at Air University's Air Command and Staff College (ACSC) at Maxwell Air Force Base. He came to ACSC from the US Army Command and General Staff College at Fort Leavenworth, Kansas, where he taught for nine years in the Department of Military History. Dr. Beckenbaugh received his PhD in 19th Century US History from the University of Arkansas, and his Masters and Bachelors in US History and History, respectively, from Shippensburg University of Pennsylvania. Beckenbaugh has taught at a variety of undergraduate and graduate civilian institutions. He is currently working on a book on the White River Campaign in Arkansas in the spring-summer of 1862, and has numerous publications and conference presentations.

Lt Col Joel R. Bius is the Deputy Chair in the Joint Warfighting Department and Assistant Professor of National Security Studies at Air University's Air Command and Staff College. Joel received his Ph.D. in US History from the University of Southern Mississippi in May 2015. He also has an MA in Military Studies with emphasis in the American Civil War and is a graduate of Air Command and Staff College. He was commissioned through ROTC at Valdosta State University in Valdosta, Georgia. In addition to teaching the joint warfighting core courses, Joel also teaches electives on the history of American military culture and the history of vice in the military.

Dr. James D. Campbell is an Assistant Professor of Military and Security Studies in the Joint Warfighting Department at Air University's Air Command and Staff College (ACSC). A retired US Army Brigadier General, Dr. Campbell served as an Infantryman and Strategic Plans and Policy Officer, with assignments at all levels of command and staff, in both the Regular Army and the National Guard. Most recently he served as the Deputy Chief, Operations Plans Division at US Central Command, and prior to his retirement served as the 39th Adjutant General of Maine and Commissioner of the Maine Department of Defense, Veterans and Emergency Management. While in this last position, he was appointed as a member of the Army Reserve Forces Policy Committee, a body of General Officers from all three Army components which advises the Secretary of the Army. Dr. Campbell holds a M.A. in European History and a PhD in British History. He is a graduate of the US Army War College and was an International Security Studies Fellow at the Fletcher School of Law and Diplomacy, Tufts University. Prior to his arrival at ACSC, he worked as an Adjunct Professor of History at the University of Maine and as a History Instructor at the US Air Force Academy. Dr. Campbell has written on subjects ranging from Homeland Defense, to Irregular Warfare and British Military History.

Dr. Charles E. Costanzo is an Associate Professor of International Security Studies at the Air Command and Staff College. A retired Air Force lieutenant colonel, Dr. Costanzo had assignments in ICBM operations, the Office of the Secretary of Defense, and as a faculty member at the US Air Force Academy. His most recent co-authored article is “Busting Myths about Nuclear Deterrence.” Previous articles include “South Asia—Danger Ahead?” an examination of potentially destabilizing military developments between India and Pakistan, and “What’s Wrong with Zero?” and “What’s Still Wrong with Zero?” both critical assessments of the proposal to eliminate nuclear weapons from the US arsenal.

Dr. Ronald Dains currently serves as Chair, Department of International Security. He holds an MA and PhD in Political Science from the University of Alabama and a MAS in Aeronautical Science and BS in Professional Aeronautics from Embry-Riddle Aeronautical University. During his doctoral matriculation, he specialized in International Relations with minor fields of study in American Politics and Public Administration. His dissertation, “Lasswell’s Garrison State Reconsidered: Exploring a Paradigm Shift in U.S. Civilian- Military Relations Research,” explored the existence of plausible indicators to determine the potential for an increasingly influential military presence in the US policymaking process. He offers elective courses in US Civil-Military Relations and Logistics and the Use of Military Force. Dr. Dains was assigned to the Air Command and Staff College (ACSC) from 2005 to his retirement in 2006.

Dr. William Dean is an associate professor of history at the Air Command and Staff College at Maxwell AFB, AL. He is a graduate of the University of the South (Sewanee) and received his doctorate and master’s degrees from the University of Chicago in European military and diplomatic history. He was a Chateaubriand recipient from the French government and has won the Military Officer of America Association (MOAA) award for civilian educator of the year and the Major General John Alison Award for Air Force Special Operations. He has published on French colonial warfare, intelligence, and air power issues in *Revue Historique des Armees*, *Penser les Ailes Francais*, *Defense Intelligence Review*, and several chapters in various books.

Dr. Melvin G. Deaile is an Associate Professor in the Joint Warfighting Department at Air University’s Air Command and Staff College and has served as the Course Director of the capstone ACSC course, Joint Warfighting 2: Airpower Operations. As a PhD and a retired Colonel from the Air Force, he has considerable knowledge and expertise about the employment of joint air power as well as nuclear operations. The Fresno, CA native graduated with an honors degree in Astronautical Engineering from the U.S. Air Force Academy in 1988. He holds Masters Degrees from Louisiana Tech University, the Army Command and General Staff College, and the Air Force School of Advanced Air and Space Studies (SAASS). In 2004, SAASS selected him for their faculty pipeline program and sent him to UNC-Chapel Hill for a PhD. Three years later, Dr. Deaile earned his PhD in American History researching organizational culture in Strategic Air Command. In addition to his academic background, Dr. Deaile served two tours in the B-52 Stratofortress and a tour in the B-2 Spirit. He has flown combat operations as part of Operations DESERT STORM and OPERATION ENDURING FREEDOM, including a record setting 44.3-hour combat mission, and deployed in support of Operation IRAQI FREEDOM. Dr. Deaile is the recipient of the Distinguished Flying Cross and a distinguished graduate of the USAF Weapon School.

Dr. Everett Carl Dolman is Professor of Comparative Military Studies at the US Air Force's Air Command and Staff College (ACSC). His focus is on international relations and theory, and he has been identified as Air University's first space theorist. Dr. Dolman began his career as an intelligence analyst for the National Security Agency, and moved to the United States Space Command in 1986. In 1991, he received the Director of Central Intelligence's Outstanding Intelligence Analyst award. Dr. Dolman received his PhD in Political Science from the University of Pennsylvania in 1995. He then taught international relations and international political economy at The College of William & Mary, Southern Illinois University-Edwardsville, and Berry College before taking his current position at Maxwell AFB in Alabama. Dr. Dolman received the Air Force's Educator of the Year Award for 2003/04. His published works include *Astropolitik: Classical Geopolitics in the Space Age* (2002), *The Warrior State: How Military Organization Structures Politics* (2004), *Pure Strategy: Power and Principle in the Information Age* (2005), and *Can Science End War?* (2015). He has written numerous book chapters as well as articles for the *Journal of Strategic Studies*, *Comparative Strategy*, *Journal of Small Wars and Insurgencies*, *Soviet and Post-Soviet Review*, *Citizenship Studies*, *Politics and Society*, *Journal of Political and Military Sociology*, and *The Air and Space Power Review*. Dr. Dolman is also co-founder and editor emeritus of *Astropolitics: The International Journal of Space Power and Policy*.

Lt Col Benjamin D. Forest is an Instructor in the Department of International Security (DEI) at Air Command and Staff College. During his 23-year Air Force officer and enlisted career, he has served in a variety of fields, including acquisition, cyberspace operations, recruiting, and contracting. He holds four masters degrees, including a Masters of Systems Engineering Management from the Naval Postgraduate School, and is a recent graduate of the Air War College (AWC) in-residence program at Maxwell AFB, AL. He has served in aircraft and satellite program offices, on the Air Staff, in Iraq and Afghanistan, and is a graduated squadron commander.

Dr. James Forsyth currently serves as Dean, Air Command and Staff College (ACSC) at Maxwell AFB, Alabama. Prior to joining ACSC, he served as Professor, International Politics at the School of Advanced Air and Space Studies. A retired Air Force Colonel, Dr. Forsyth has spent more than twenty-five years in military education, with a wide variety of assignments at Maxwell and the United States Air Force Academy. He is the author of 'Remembrance of Things Past: The Enduring Value of Nuclear Weapons' and the 'The Common Sense of Small Nuclear Arsenals'—each garnering national and international attention. His most recent publications, 'What Great Powers Make It: International Order and the Logic of Cooperation in Cyberspace' and 'Structural Causes and Cyber Effects: Why International Order is Inevitable in Cyberspace' examine the prospects of achieving international cooperation in cyber-space. A native of New Jersey, he received his PhD from the Joseph Korbel School of International Relations, University of Denver.

Dr. Kelly A. Grieco is an Assistant Professor of Military and Security Studies in the Department of International Security at the Air Command and Staff College (ACSC). She is also the Course Director for War Theory and teaches courses in war theory, international security, and military effectiveness. She holds a PhD in Political Science from the Massachusetts Institute of Technology, where she was an affiliate of the Security Studies Program (SSP), and A.B. (*summa*

cum laude) in Government from Dartmouth College. She has held fellowships from the MIT Center for International Studies (CIS), the Smith Richardson Foundation, and the Tobin Project. Her research interests include coalition warfare, coalition military effectiveness, military strategy and US force posture. She is currently working on a book manuscript on the sources of coalition battlefield effectiveness.

Dr. Jordan R. Hayworth is an Assistant Professor of Military and Security Studies at Air University's Air Command and Staff College (ACSC). He teaches the Airpower I and Airpower II courses for the Department of Airpower. Hayworth received his B.A. in History from High Point University in the Piedmont-Triad region of North Carolina. He earned his M.A. and Ph.D. in European History from the University of North Texas in Denton, Texas, where he studied under Dr. Michael V. Leggiere as a Student Fellow of the Military History Center. Dr. Hayworth's article, "Evolution or Revolution on the Battlefield? The Sambre and Meuse Army in 1794," was published by *War in History* in 2014. He recently authored a book chapter on the French Way of War for an edited volume on *Napoleon and the Operational Art of War* published by Brill. His doctoral dissertation won the 2016 Edward M. Coffman First Manuscript Prize through the Society for Military History and will be published by the University of North Carolina at Chapel Hill Press.

Lt Col Paul “Abbie” Hoffman, PhD, is an instructor in the Department of Airpower at Air University's Air Command and Staff College. He entered the Air Force in 1995 from the United States Air Force Academy, where he studied history. As an intelligence officer, he held various positions at the squadron, wing, and NAF levels, with an emphasis on unit-level operations, ISR management, and support to the test and evaluation communities. He deployed to Iraq in 2004 and 2006, and deployed to Kandahar Air Field in 2009 as an air advisor to the Afghan National Army Air Corps. An ACSC distinguished graduate, he joined the faculty in 2008. He received his PhD in Political Science (IR and comparative politics) from Indiana University in 2017.

Dr. Kevin C. Holzimmer is Professor of Comparative Military Studies at Air University's Air Command and Staff College (ACSC). Before his current position at ACSC, he was a research professor at the USAF Air Force Research Institute and taught at the School for Advanced Air and Space Studies. Dr. Holzimmer has published numerous studies on World War II in the Pacific, including *General Walter Krueger: Unsung Hero of the Pacific War* (University Press of Kansas). He is currently working on a book-length project that examines how the principal air, land, and sea commanders forged an effective joint team that successfully fought the Japanese in Douglas MacArthur's Southwest Pacific Area. In addition to his academic pursuits, Dr. Holzimmer has worked on recent policy concerns, first with GEN David H. Petraeus' USCENTCOM Joint Strategic Assessment Team (9 Oct 2008- Feb 2009) and most recently conducting fieldwork in charting a U.S. Air Force strategy based upon President Obama's famous “pivot to Asia” speech. He holds a PhD in military history from Temple University.

Major Tenaya G. Humphrey is an instructor and advisor in Air Command and Staff College's Department of International Security and an AY16 Air Command and Staff College graduate with highest academic distinction. She is also the Deputy Course Director for War Theory, having previously served as the Course Director for the Gathering of Eagles elective, which preserves airpower legacies through research and interviews, and inspires future leaders through

outreach initiatives. Prior to her tour at Air Command and Staff College, Maj Humphrey was a T-1 Evaluator Pilot and C-17 Instructor Pilot. She holds a MAS in Military Operational Art and Science from Air University, a MAS in Aeronautical Science, specializing in Human Factors from Embry-Riddle University, and a BS in Biology from the United States Air Force Academy.

Dr. Wes Hutto is an Assistant Professor of Military and Security Studies at Air University's Air Command and Staff College (ACSC). He is also the Course Director for International Security I. His research interests include multinational military exercises as they relate to international and regional security dynamics, and institutional processes in international politics. He holds a PhD in Political Science from the University of Alabama.

Dr. Kenneth Johnson is the Deputy Chair of the Department of Research and Director of the Electives Program at the Air Command and Staff College. Dr. Kenneth Johnson is an expert in Napoleonic History. Earning his PhD in French History in 2006 at Florida State University, Dr. Johnson has done extensive in-depth research at various French archives on topics of French naval and colonial history. Having taught for the Naval War College and United State Military Academy, Dr. Johnson has been teaching at ACSC since 2010. He has published several articles and a book chapter on Napoleon's use of sea power. In addition to expanding the aforementioned chapter into a book, Dr. Johnson is also writing a biography of a prominent French admiral, Admiral Louis Thomas Villaret-Joyeuse.

Lt Col Benjamin D. Forest is an instructor at Air Command and Staff College's Department of International Security. During his 23-year Air Force officer and enlisted career, he has served in a variety of fields, including acquisition, cyberspace operations, recruiting, and contracting. He holds four masters degrees, including a Masters of Systems Engineering Management from the Naval Postgraduate School, and is a recent graduate of the Air War College (AWC) in-residence program at Maxwell AFB, AL. He has served in aircraft and satellite program offices, on the Air Staff, in Iraq and Afghanistan, and is a graduated squadron commander. His research interests include the military use of additive manufacturing (i.e., 3D printing), leveraging commercial space capabilities for military use, and international security.

Charles T. Kamps is an Assistant Professor of Joint Warfare Studies at the Air Command & Staff College. He holds a BA in European History from Norwich University and an MA in Military History from Kansas State University. Prior to joining the ACSC faculty, he served as an Armor officer in the US Army, a Surface Warfare Officer in the US Navy, and as a defense consultant in Washington, DC. His published works include *Armies of NATO's Central Front* (Janes), *The History of the Vietnam War* (The Military Press), *Peripheral Campaigns & the Principles of War* (MA/AH Publishing), and numerous articles on defense and military history. As a designer of military simulations, he has produced products for DOD, the US Army, and the CIA, as well as eight published wargames for the commercial market. He is the author of a 2001 Ira C. Eaker Award-winning article for aerospace power scholarship, and is a member of the Military Operations Research Society. His research interests include 18th, 19th, and 20th Century Military History, remotely-piloted aircraft, Vietnam, and the Cold War.

Dr. Robert M. Kerr is an Associate Professor in the Joint Warfighting Department at the Air Command and Staff College (ACSC). He also previously served as Course Director for

International Security 2: The Use of Armed Force. He holds a PhD in Political Geography from the University of Oregon, and an MA in Geosciences from the University of South Carolina. His BA is in History with an emphasis on the Islamic World from Grand Valley State University. In addition to teaching at ACSC, Dr. Kerr has worked at the Air Force Culture and Language Center, and taught courses at the US Air Force Special Operations School, the Senior NCOA Academy, and the Air Advisor Academy. In 2008-2009 he spent 15 months in NE Baghdad with the 3rd Brigade 4th Infantry Division and 1st Brigade 1st Cavalry Division as an embedded political/cultural advisor.

Dr. Michael Kraig is Associate Professor of International Security at Air Command and Staff College. He earned his PhD in Political Science from the University at Buffalo, New York, with a major in international security studies and a minor in comparative politics. Dr. Kraig served in several senior capacities with the Stanley Foundation, a non-profit, non-partisan NGO devoted to advocating security policy options for the United States and its competitors that would moderate the extremes of their geopolitical disagreements. He was a frequent traveler to Washington, DC, Europe, and the Middle East to give scholarly presentations to senior policy leaders, policy analysts, and academics. His publications include the book, *Shaping U.S. Military Forces for the Asia Pacific: Lessons from Conflict Management in Past Great Power Eras* by Rowman & Littlefield Press, and numerous articles on US-Iran relations, nuclear deterrence in the developing world between regional rivals, and military theory and its relation to US conventional force posture in East Asia, in *The Journal of Peace Research*, *India Review*, *Security Studies*, and *Strategic Studies Quarterly*.

Dr. John T. LaSaine, Jr., earned A.B., A.M., and Ph.D. degrees in history from Brown University. His primary academic field is the history of United States foreign relations, with research and teaching interests including modern military history and political-military affairs. Dr. LaSaine has been an ACSC faculty member since 1997, serving as Vice-Dean for Academic Affairs (2003-06) and Chairman of the Department of Leadership and Strategy (2009-12). He has also taught at the University of Georgia, the Air War College, and the School of Advanced Air and Space Studies.

Dr. Sebastian H. Lukasik is Assistant Professor of Comparative Military Studies in the Department of Airpower at Air Command Staff College. He received a Ph.D. in American History from Duke University. He has served as Course Director for the Leadership and Warfare course and the Airpower I course. Prior to arriving at ACSC, he taught as a visiting instructor at Duke University and North Carolina State University. In addition to teaching courses in the ACSC core curriculum, he offers elective classes on Combat Motivation and Morale in Historical Perspective, Cultural History of Flight, and war and society in the era of the World Wars.

Dr Robert (Bob) Mahoney is the Chair, Department of Joint Warfighting at the Air Command and Staff College. He has a PhD in History from the George Washington University, a MS in National Resource Strategy from the Eisenhower School, National Defense University (NDU), a MS in Management from Webster University, and a BS in Engineering Sciences from the United States Air Force Academy. Prior to arriving at ACSC, Dr. Mahoney was the Dean of the Marine Corps War College and an Assistant Professor at the Eisenhower School at NDU. His book, "The

Mayaguez Incident" was published by Texas Tech Press. He is a retired AF Col with over 27 years of service, commanded a KC-135 flying squadron, was on the AMC and CJCS staff, and was a command pilot with over 3500 hours in the T-37, T-38 and KC-135. His research interests include the US Constitution, Joint Warfighting, Joint Planning, Operational Design, Leadership, US Air Force History, Vietnam War era, WW II, Revolutionary War, and Civil War.

Major Christopher G. Marquis is an Instructor in the Department of Joint Warfighting at the Air Command and Staff College, Air University, Maxwell AFB, Alabama. He joined the ACSC staff in June 2015. His work at DEW includes designing lesson plans and teaching plans, and instructing the two joint warfighting courses (JW1 and JW2). He also instructs the ACSC elective "Understanding the U.S. Constitution" with Dr. Robert Mahoney. His primary career field is contracting, and he is a worldwide deployable contingency contracting officer. Before his current assignment, Major Marquis was the Chief, Operations Branch, Air Force Installation Contracting Agency (AFICA), Operating Location Air Combat Command (OL-ACC), Langley AFB, Virginia. Major Marquis has served five deployments to Afghanistan and Iraq, the latest as the Chief of the Regional Contracting Office in Sharana, Afghanistan in October 2012. He was commissioned in 2001 through the Officer Training School at Maxwell AFB, Alabama. In 2000, he earned his bachelor's degree from Cornell University in Ithaca, NY. In 2006, he earned his MBA from the University of Massachusetts, Lowell.

Lt Col John K. Martin is an Instructor in the Joint Warfighting Department at Air University's Air Command and Staff College. Lt Col Martin recently served as the MacDill Air Force Base Chief of Safety where he was responsible for the base safety program for 13,000 personnel. He was the Chief of Levant Strategic Plans and Executive Officer to the Director, Strategy, Plans, and Policy, United States Central Command. In this capacity, he was responsible for developing long-range strategic planning for Jordan, Syria, Lebanon, Egypt, Turkey, Israel, and Cyprus. Additionally, he organized, planned, and coordinated executive matters and support for the two-star Director and seven one-star Deputies. Lt Col Martin has served in a variety of flying assignments, qualifying as an instructor pilot in the KC-135R and KC-10A. Lt Col Martin is a graduate of the School of Advanced Air and Space Studies and Air Mobility Command's PHOENIX REACH and PHOENIX HAWK leadership development programs. His previous positions include assistant operations officer in Air Mobility Command's largest operations support squadron, flight commander in two major weapon systems, headquarters aircrew analysis officer, and Tanker Airlift Control Center global operations director. Lt Col Martin is a command pilot with more than 2,500 flying hours including multiple combat deployments.

Dr. Ann Mezzell is an Assistant Professor in the Department of International Security. She is also the Course Director for International Security II. She holds an MA in political science from the University of Alabama and PhD in political science from the University of Georgia. Her fields of specialization include international relations and comparative politics. Her research focuses on new wars, failed states, human security, humanitarian intervention, and peace enforcement. In addition to teaching the international security core courses, she offers an elective on the state and social contract theory.

Wing Commander Rich Milburn currently serves as the UK Liaison Officer to ACSC and is an instructor in the Department of International Security. He is also the Deputy Course Director

for International Security I. He holds an LL.B from the University of Durham and an MSc from Kingston University London in Aerospace Systems. His Masters' thesis was titled Advanced Radar and Infra-red Solutions for the Detection of Rockets, Artillery and Mortars. He graduated from ACSC AY16 with academic distinction. Milburn is an Aerospace Battle Manager, who has spent considerable time in tactical Air Command and Control posts, including a tour of duty in Iraq in 2003 and two tours of duty in Afghanistan in 2007 and 2010. More recently, Milburn was the Executive Officer of the UK Air C2 ISR Test and Evaluation (T&E) Squadron at RAF Waddington that is responsible for the T&E of multiple platforms including the Sentry E-3D, Sentinel R1 and the Airseeker Programme, as well as ground-based radar and tactical data links. His final assignment prior to being at Maxwell was as the Head of the Battle Management Branch at the NATO Deployable Air Command and Control System, Recognised Picture Production Centre and Sensor Fusion Post, part of NATO's Deployable Air Command and Control Centre. Milburn was assigned to the Air Command and Staff College from 2015 to 2018.

Dr. John L. Minney is an Assistant Professor of Military and Security Studies in the Joint Warfighting Department at Air Command and Staff College. A retired Air National Guard Lieutenant Colonel, Dr. Minney is a Master Navigator with experience flying F-111, F-15E, KC-135, and C-130 aircraft, and is a graduate of both Air Command and Staff College, and Air War College. He holds a doctorate degree in History from the University of Alabama, and his research interests include military technology, the development of doctrine, and organizational culture. He is currently revising his dissertation, "Thinking Through Transition: USAF Doctrine, Technology, and the F-111A" for publication.

Dr. S. Mike Pavelec returned to ACSC Department of Airpower after three years at the Joint Advanced Warfighting School in Norfolk, VA. Prior to that Dr. Pavelec taught at the Naval War College, Air Command and Staff College, and the School of Advanced Air and Space Studies (SAASS). He received his PhD from The Ohio State University in 2004 and teaches graduate-level courses in military and diplomatic history, international relations, and security studies. He has three books in print and three under contract. He is currently writing a survey of American military history, due to be published this year. His follow-on project is on airpower in World War One, with a focus on the Gallipoli campaign.

Dr. Edwin Redman, Colonel, USAF, Retired, is an Assistant Professor of Military and Security Studies at Air University's Air Command and Staff College (ACSC). Dr. Redman is a Command Pilot with tours in each of the Air Force's bomber aircraft. He served as an instructor pilot in the T-38, B-1 and B-2, and flew combat missions in Operation Iraqi Freedom in 2003 in the B-2. He is a graduate of the US Air Force Academy, ACSC, and the School of Advanced Air and Space Studies. Following SAASS, Dr. Redman attended Duke University, where he received his PhD in History. His last operational assignment was Deputy Commander, 509th Operations Group, Whiteman Air Force Base. He completed his active-duty service at Air University, holding several positions, including Director of Warfighting Education at the LeMay Center for Doctrine Development and Education, and Director of the Grand Strategy Seminar, Air War College. He retired from the active-duty Air Force in 2014, and joined Air University as a civilian professor in 2015.

Dr. Matthew R. Schwonek is Associate Professor of Comparative Military Studies in the Department of International Security of Air Command and Staff College. In ACSC, he has held multiple course director positions, while he currently serves as director of the exchange with the Polish National Defense University. He teaches core courses on international security and military theory as well as electives/research seminars on the First World War and Politics and Security in Central Europe. He holds a Doctor of Philosophy Degree in East Central European and Russian History from The Ohio State University, where he formerly served as assistant director of the Center for Slavic and East European Studies. He is the author of several articles, essays, and reviews on the armed forces of Poland published in *The Journal of Military History*, *Przegląd historyczny*, *War in History*, *The Polish Review*, and *The Journal of Slavic Military Studies*. He currently serves on the editorial board of *Przegląd wojskowo-historyczny* (Warsaw). In progress is a biography of Gen. Kazimierz Sosnkowski (1885-1967).

LCDR Ben Smith is an Instructor of Airpower Studies at Air University's Air Command and Staff College (ACSC) and an ACSC AY16 graduate. Lcdr Smith has served aboard both aircraft carriers (USS Enterprise) and Aegis ships (USS San Jacinto and USS Curtis Wilbur) and is qualified carrier Officer of the Deck (OOD), Anti-Air Warfare Coordinator (AAWC), Aegis Tactical Action Officer (TAO), and Ballistic Missile Defense Watch Officer (BMDWO). He has served as an instructor at Naval Nuclear Power School and Nuclear Prototype Training Unit.

Dr. Paul J. Springer is a Professor of Comparative Military Studies and the Chair of the Department of Research. He holds a doctorate in history from Texas A&M University. Dr. Springer is the author of five books, with four more expected to publish in 2017. These works include *America's Captives: Treatment of POWs from the Revolutionary War to the War on Terror* (Kansas, 2010); *Military Robots and Drones* (ABC-CLIO, 2013); *Transforming Civil War Prisons: Lincoln, Lieber, and the Politics of War* (Routledge, 2014, co-authored by Glenn Robins); *Cyber Warfare* (ABC-CLIO, 2015); and *9/11 and the War on Terror* (Greenwood, 2016). His forthcoming works are *The Encyclopedia of Cyber Warfare* (ABC-CLIO, 2017); *Outsourcing War to Machines: The Military Robotics Revolution* (Praeger, 2017); *America's Wars: U.S. Military History, 1500-Present* (Naval Institute Press, 2017, coauthored by S. Michael Pavelec); and *Brothers in Peace and War: The West Point Class of 1829* (Kansas, 2017). He teaches courses on leadership, strategy, terrorism, and technology. Prior to ACSC, Dr. Springer taught at the United States Military Academy at West Point and Texas A&M University. Springer is also the editor of two series, *Transforming Warfare* and *History of Military Aviation*, both with the Naval Institute Press.

Mr. Christopher M. Stamper is an Instructor of Joint Warfighting at the United States Air Force's Air Command and Staff College. He has a Bachelor's of Science Degree in Oceanography and a Master of Arts in National Security and Strategic Studies. He is currently a doctoral student concentrating his studies on Public Policy and Public Administration of Peacekeeping Operations, specifically in East African Affairs. He has taught at the US Naval Academy and the Air War College.

Dr. John G. Terino is the Chairman of the Department of Airpower at the United States Air Force's Air Command and Staff College (ACSC). At ACSC, he teaches courses on Leadership and Warfare, Airpower, the Practice of Command, Joint Warfare Planning, Joint Air Planning,

and an elective on the Air Force in Fact, Fiction, and Film. Prior to teaching at ACSC, he was a professor at the School of Advanced Air and Space Studies (SAASS). While at SAASS, he directed the school's course on Technology and Military Innovation, courses on Airpower History, and the institution's wargaming activities. He is currently researching a comprehensive history of the Joint Strike Fighter Program. Dr. Terino's dissertation explores interactions of the military-industrial-academic complex in the early Cold War and Vietnam eras and the development of biological warfare under the purview of the USAF. Before coming to Air University, he taught for four years at the Air Force Academy in the Department of History. He retired from the Air Force in the grade of Lieutenant Colonel in 2008 after serving for almost 23 years. He received his PhD in the History and Sociology of Science from the University of Pennsylvania in 2001.

Dr. Michael E. Weaver is an Associate Professor of History who specializes in the history of war and warfare. He is the author of *Guard Wars: The 28th Infantry Division in World War II* (Indiana University Press, 2010), as well as five articles. His most recent are "The Relationship between Diplomacy and Military Force: An Example from the Cuban Missile Crisis" in *Diplomatic History* (2014) and "Missed Opportunities before Top Gun and Red Flag" in *Air Power History* (2013). Earlier articles address the Air National Guard in the Berlin Crisis, economic intelligence, and the social composition of the Pennsylvania National Guard. Weaver is now completing a second book, *National Policy and Air Power Effectiveness during the Vietnam War*. Weaver's skills include leading small group discussions, academic lecturing, research, and writing. His book reviews have appeared in *The Journal of Military History*, and *H-War*, among others. Prof. Weaver has taught courses on U.S. history, war & society, American military history, the Vietnam War, World War II, African-American history, international security, and air power. He received his doctorate from Temple University in 2002 having worked with Russell Weigley and Richard Immerman. Weaver also studied under William Leary, John Morrow, Jr., and Eugene Genovese at the University of Georgia.

Major Brent D. Ziarnick is an Assistant Professor of Comparative Military Studies at the Air University's Air Command and Staff College and deputy lead for the Air University's Space Horizons Initiative. Maj Ziarnick is a command space operations officer with extensive experience in Global Positioning System (GPS) engineering, offensive space control, and theater space command and control. In civilian life, he was a launch operations engineer at Spaceport America, New Mexico where he developed the long-range plan for the world's first purpose-built inland commercial spaceport's vertical launch activity. He holds a doctorate in economic development from New Mexico State University, a master's degree in space systems engineering from the University of Colorado-Colorado Springs, a bachelor's degree in space operations from the United States Air Force Academy, and is a graduate of both the Air Command and Staff College and the School of Advanced Air and Space Studies. Major Ziarnick is the author of one book and multiple articles on space power theory and strategy.